

## **REMARKS**

### **Status of the Application**

In the Final Office Action, claims 1-10 were rejected. In the Advisory Action, the Examiner indicated that the amendments submitted in response to the Final Office Action would not be entered.

In the present response, claims 10, 13, 15, 31, 33, 35, 37 have been amended, and claims 14 and 28 have been canceled without prejudice or disclaimer of the subject matter thereof, so that claims 10-13, 15-27, and 29-37 are pending.

Claims 10, 31, 33, 35, and 37 have been amended to further define the rear face as having a "smooth high-gloss surface."

Claims 13 and 15 have been revised to accommodate the revision of claim 10.

### **Rejection Under 35 U.S.C. §102**

Claims 10-12, 15-18, 20-24, 26, 29-31, 33 and 35 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,532,045 to Wade. Claims 10-12, 16-19, 21-24, 29-31, 33, 35, and 37 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4, 877,657 to Yaver.

#### **Rejection as to Wade**

The Examiner asserts that Wade teaches a decorative vehicle trim part that "comprises a transparent plastic material 20 having an external surface (the surface facing the viewer: the front face) and an internal face (the surface facing the vehicle body: the rear face)". The Examiner further asserts that the "internal (rear) surface is coated with a colored or pigmented adhesive 30 to match or complement either the interior or exterior colors of the car", and that the "part is produced by applying the lacquer to the rear face of the material 20".

The Examiner argues that the colored or pigmented adhesive of Wade "reads on applicant's claimed opaque lacquer layer of either a colored lacquer or effect-producing lacquer". The Examiner indicates that he has given the term "lacquer" "the broadest reasonable interpretation consistent with the common meaning known by one of ordinary skill in the art: 'any of various clear or colored synthetic organic

coatings that typically dry to form a film by the evaporation of solvent'." The Examiner further argues that "the film forming adhesive components taught by Wade include some of the film-forming lacquer components disclosed by applicant", and therefore "there is no evidence of record that the colored or pigmented adhesive coating of Wade is excluded by applicant's definition of the term 'lacquer'."

Applicants, however, respectfully disagree with the Examiner because contrary to the Examiner's assertions, an "adhesive" and a "lacquer" are terms of art that a person of ordinary skill in the art would recognize as enjoying two separate and distinct meanings. The Examiner, however, in responding to Applicants' previous arguments regarding this difference, asserts that "Applicant's arguments are noted, but they are not persuasive." The Examiner further indicates that "[i]t remains the examiner's position that the specific adhesive of Wade reads on a lacquer within the context of applicant's invention." Moreover, the Examiner refers Applicants to the detailed arguments set forth in the May 18, 2004 Final Office Action, wherein the Examiner asserted that it is not his "position that *all* adhesives are lacquers or *vice versa*", but rather that the "pigmented (i.e., decorative) adhesion layer of Wade forms a coating and, consequently, reads on lacquer according to the ordinary meaning thereof."

The Examiner, however, openly admits that "[w]hile one of ordinary skill in the art, in reading the Wade reference, might not select a lacquer that is not an adhesive, this does not mean that the adhesive of Wade is not a lacquer according to the broadest reasonable interpretation of the term given by one of ordinary skill in the art, in light of the specification." Additionally, the Examiner asserts that the "adhesive of Wade is [a] specific type of lacquer, said specificity derived from i[t]s *function* or *use*: being capable of bonding two surfaces together." The Examiner concludes by stating that "Applicant merely claims a 'lacquer,' and neither recites nor excludes a particular function or use of this lacquer."

Applicants, however, respectfully assert that the Examiner has failed to establish a *prima facie* of obviousness because all of the limitations of the claimed invention have not been taught or suggested by Wade.

Applicants respectfully direct the Examiner's attention to pages 359-362 of the "Paints and Coatings" section of Vol. A 18 of *Ullmann's Encyclopedia of Industrial*

*Chemistry* (attached hereto as Exhibit A), wherein Ullmann's expressly states in relevant part:

Paints, coating materials, and with some restrictions lacquers are synonymous terms. They are normally liquid compositions which dry to form well-adhering films when applied in a thin layer on surfaces. Lacquers dry primarily by solvent evaporation. ... Coating is often used as a more general term that denotes any material that is applied to a surface in a thin continuous layer. Paint has been traditionally employed to denote opaque pigmented materials as opposed to clear films (varnishes).

A18 *Ullmann's Encyclopedia of Industrial Chemistry* 359-362 (Barbara Elvers et al. eds., 5th ed.1991).

Applicants further direct the Examiner's attention to pages 221-222 of the "Adhesives" section of Vol. A 1 of *Ullmann's Encyclopedia of Industrial Chemistry* (attached hereto as Exhibit B), wherein Ullmann's expressly states in relevant part:

"Adhesive" is defined as a "nonmetallic material that is capable of joining bodies together by surface adhesion and internal strength (adhesion and cohesion) without the structure of the bodies undergoing significant changes." The term "adhesive" is a generic term and covers other common terms, such as "glue," "paste," "gums," "adhesive cement," and "bonding agent."

A1 *Ullmann's Encyclopedia of Industrial Chemistry* 221-222 (Wolfgang Gerhartz et al. eds., 5th ed.1991).

Although Applicants believe the Examiner's interpretation of the term "lacquer" to be overly broad and unreasonable, Applicants herein declare that the lacquer of their claimed invention does not encompass an adhesive. That is, in so much as the term lacquer could be construed to encompass adhesives, Applicants herein disclaim adhesives. The "adhesive" being disclaimed shall be defined in accordance with the definition excerpted from Exhibit B and fully set forth hereinabove.

Applicants wish to point out that in In re Alberto Lee Bigio the Federal Circuit expressly indicated that in situations where claim language does not carry a narrow meaning, the PTO may limit the "claim based on the specification or prosecution history when those sources expressly disclaim the broader definition." 2004 U.S.

App. LEXIS 17981 Case No. 03-1358 (August 24, 2004). Applicants respectfully assert that as adhesives have been disclaimed from the definition of the term lacquer, the Examiner should interpret the term lacquer in a manner that does not include the term adhesives as defined hereinabove.

As Applicants have expressly disclaimed adhesives as defined hereinabove from the definition of the term lacquer, Applicants respectfully assert that Wade does not disclose ALL of the limitations of Applicants' claimed invention. As a result, Applicants respectfully assert that the Examiner has failed to establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection.

#### Rejection as to Yaver

The Examiner asserts that "Yaver teaches a decorative vehicle trim part" that "comprises a transparent plastic core 11 having front and rear faces with an opaque lacquer layer disposed directly on the rear face and a transparent film overlay disposed on the front face".

Applicants, however, assert that as claims 10, 31, 33, 35 and 37 require the rear face to have "a smooth high-gloss surface", Applicants' claimed invention is novel over Yaver. Applicants direct the Examiner's attention to column 3, lines 46-62 of Yaver, wherein Yaver expressly states that the UV curable coating is applied to the underside of transparent or translucent core 11 that is mechanically abraded or embossed so as to form a pattern, and that the opaque layer is only then subsequently applied to such abraded or patterned surface. An abraded or patterned surface is not "a smooth high-gloss surface" in accordance with Applicants' claimed invention, and therefore Yaver has failed to disclose all of the limitations of Applicants claimed invention. In fact, such a disclosure on its face expressly teaches away from Applicants' claimed invention. As a result, Applicants respectfully assert that the claimed invention is novel over Yaver. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection.

**Rejection under 35 U.S.C. §103**


Claims 13, 14, 19, 25, 27, 28, 34 and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,532,045 to Wade. Claim 32 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,532,045 to Wade in view of EP No. 0 329 336 to Balloni, or in the alternative, in further view of GB Patent No. 2 244 283 A to Christopherson. Claims 34 and 36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,877,657 to Yaver.

Applicants, however, respectfully submit that Applicants' claimed invention is not obvious over either Wade, either alone or in combination with Balloni and/or Christopherson, or Yaver for the same reasons as already set forth hereinabove. Specifically, Section 2143.03 of the MPEP indicates that "all the claim limitations must be taught or suggested by the prior art" to establish a *prima facie* case of obviousness. As Applicants have already explained hereinabove, however, Wade in view of Balloni and Christopherson, and Yaver fail to teach ALL of the limitations of Applicants' claimed invention, and therefore the Examiner has not established a *prima facie* case of obviousness. Accordingly, Applicants respectfully request that the Examiner withdraw these rejections.

**SUMMARY**

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and therefore respectfully solicit a Notice of Allowance. In order to expedite disposition of the case, the Examiner is invited to contact Applicants' representative at the telephone number below to resolve any remaining issues. Should there be a fee due that is unaccounted for, please charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,

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## Paints and Coatings

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## 1. Introduction

Paints, coating materials, and with some restrictions lacquers are synonymous terms. They are normally liquid compositions which dry to form well-adhering films when applied in a thin layer on surfaces. Lacquers dry primarily by solvent evaporation. The composition of a paint determines whether a high-gloss film or a flat (matt) surface is formed. Coating is often used as a more general term that denotes any material that is applied to a surface in a thin continuous layer. Paint has been traditionally employed to denote opaque pigmented materials as opposed to clear films (varnishes).

Definitions given in ISO 4618/1 are as follows:

**Paint.** A product, liquid or in powder form, containing pigment(s), which, when applied to a substrate forms an opaque film having protective, decorative, or specific technical properties.

**Varnish.** A product, which, when applied to a substrate, forms a solid, transparent film having protective, decorative, or specific technical properties.

### 1.1. Historical Development

Coating materials were already used in pre-historic times as is witnessed by the cave paintings from ca. 15000 B.C. discovered in the South of France and the North of Spain. The paints used in the Stone Age were composed of substances such as animal fat, colored earths, and

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## 1. Introduction

"Adhesive" is defined as a "nonmetallic material that is capable of joining bodies together by surface adhesion and internal strength (adhesion and cohesion) without the structure of the bodies undergoing significant changes." The term "adhesive" is a generic term and covers other common terms, such as "glue," "paste," "gums," "adhesive cement," and "bonding agent."

**Composition.** An adhesive is composed of basic raw materials, which are called binders [1] and which determine its adhesiveness (adhesion) and its internal strength (cohesion), and of frequently necessary auxiliaries, which establish particular end-use and processing characteristics. The adhesiveness of an adhesive, its internal strength after setting, and its processing characteristics are the fundamental properties that determine its suitability for use in forming adhesive joints. Adhesive joints are the joints formed between substrates and adherends using adhesives.

The binders used for adhesives are primarily high polymers having optimal strength properties. High internal strength (cohesion) is essential if the adhesive in an adhesive joint is to be able to transmit forces from one adherend to the other. Most adhesives contain high molecular weight organic substances as their basic raw materials or reactive organic compounds that are preliminary stages of polymers and that react during the bonding process to form polymers. Inorganic polymers, such as the various types of fiberglass, are used only to a very limited extent.

Previously, the only binders available were natural polymers of vegetable and animal origin, such as natural resins, starch, and particularly protein (glutine from hides and bones, blood albumin, casein from milk). Subsequently, cellulose derivatives and products based on natural rubber were used also. Over the last 40 years, the development of plastics and synthetic resins has produced a very wide range of binders for adhesives. Virtually any standard polycondensate, homopolymer, and copolymer and also polyadducts may be used, provided they can be applied as solutions, dispersions, emulsions, or melts. In addition to these raw materials, such auxiliaries as resins, plasticizers, fillers, thickeners, solvents, antiagers, hardeners, or setting retarders are required, depending on the end use. Their function is *inter alia* to adjust tack, to im-

prove adhesion, to make flexible, to regulate viscosity, to stabilize, and to influence setting or hardening.

**Adhesive Joints.** Adhesion by means of a sticky substance is one of the oldest joining techniques [2]. In many cases, it is as effective as other joining techniques, such as riveting, welding, soldering, and screwing; in some cases it complements those techniques; and frequently it affords numerous advantages. On the other hand, certain processing requirements and material properties related to chemical structure can restrict the use of adhesives.

Bonding has the advantage that the joining of adherends can be carried out very rationally, often extremely quickly, and particularly economically [3]. One important feature common to all adhesive joints is the highly uniform distribution of forces over the entire joint area by comparison with rivet and screw joints. The uniform stress levels frequently provide for more optimal utilization of material strength. Accordingly, thinner and hence lighter sections of material may be used. This has resulted in the saving of material and, for example, in the automotive, aircraft, manufacturing, and furniture industries, in totally new structural elements (sandwich elements).

The use of adhesives enables numerous materials, even those differing widely in type, to be joined to one another. This applies above all to materials that cannot be joined to one another by other techniques. Because some adhesives set even in relatively thick layers, any unevenness in the constituent material of the adherends may be smoothed out during bonding, or significant dimensional tolerances may even be bridged on the gap-filling principle. The adhesive layer of an adhesive joint even may have a vibration-dampening effect and, by virtue of its insulating properties, can prevent contact corrosion in adhesive joints involving metals of different normal potential. Another advantage is the fact that many adhesives can be applied at room temperature or, when heat must be used for application, it is sufficient to apply temperatures at which the constituent materials of the adherends are not affected, as can happen in the welding of metals and plastics.

The usability of adhesives can be restricted when stringent requirements are imposed on the thermal stability of an adhesive joint [3]. Like all plastics, adhesives based on organic polymers



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